

## **DETAILED ACTION**

### ***Status of the Claims***

1. Claims 1-5, 28-35, 46-48 and 53 are pending.

Applicants' amendments filed November 21, 2008 are acknowledged. Applicant's response has been fully considered. Claims 1, 5, 28, 35, 48 and 53 have been amended, and claims 6-11 and 49-51 have been cancelled. Therefore, claims 1-5, 28-35, 46-48 and 53 are examined.

### **Withdrawn Claim Rejections - 35 USC § 112**

2. The previous rejection of claims 7-11, 50 and 51 under 35 U.S.C. 112, first paragraph, enablement, is withdrawn in view of applicants' cancellation of the claims, and applicants' response in the amendment filed November 21, 2008.
3. The previous rejection of claims 1, 3, 4, 6-11, 49-51 and 53 under 35 U.S.C. 112, first paragraph, written description, is withdrawn in view of applicants' amendment to the claims, applicants' cancellation of the claims, and applicants' response in the amendment filed November 21, 2008.

### **Withdrawn Claim Rejections - 35 USC § 103(a)**

4. The previous rejection of claims 1 and 28 under 35 U.S.C. 103(a) as being unpatentable over Isogai *et al.* (U.S. Patent 6,979,557), is withdrawn in view of applicants' amendment to the claims, and applicants' response at pages 7-8 of the amendment filed November 21, 2008.

### ***Examiner's Amendment***

An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mary Katherine Baumeister on December 3, 2008.

**Examiner's Amendment to the Claims:**

Claims 1-4, 28, 30, 33-35 and 53 have been amended as follows:

1. (Currently amended) A cosmetic or pharmaceutical composition comprising, in a physiologically acceptable medium, at least one purified, natural or synthetic polypeptide, ~~the peptide sequence of which~~ wherein said polypeptide consists of at least one amino acid sequence selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 5, and SEQ ID NO: 6.

2. (Currently amended) The composition as claimed in claim 1, wherein said polypeptide ~~has a peptide sequence consisting~~ consists of SEQ ID NO: 5 or SEQ ID NO: 6.

3. (Currently amended) The composition as claimed in claim 1, wherein said polypeptide is further prepared as ~~in~~ a dimeric or other multimeric form.

4. (Currently amended) The composition as claimed in claim 1, wherein said polypeptide has further undergone one or more post-translational modifications.

28. (Currently Amended) An isolated and purified polypeptide belonging to the aspartic acid protease family and consisting of SEQ ID NO: 6.

30. (Currently Amended) The polypeptide as claimed in claim 28, ~~which is in~~ wherein said polypeptide is further prepared as a dimeric or other multimeric form.

33. (Currently Amended) The polypeptide as claimed in claim 32, wherein said polypeptide is purified from human epidermis or other human skin.

34. (Currently Amended) The polypeptide as claimed in claim 28, ~~which wherein~~ said polypeptide has further undergone one or more post-translational modifications.

35. (Currently Amended) The polypeptide as claimed in claim 28 ~~which wherein~~ said polypeptide is further fused with another polypeptide, a hydrophilic or hydrophobic targeting agent or a bioconversion precursor.

53. (Currently Amended) A method for degrading corneodesmosin in corneocytes comprising applying to corneocytes an effective corneodesmosin degrading amount of at least one polypeptide, ~~the peptide sequence of which wherein~~ said polypeptide comprises at least one amino acid sequence selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 5 and SEQ ID NO: 6.

**The following is an Examiner's Statement of Reasons for Allowance:** The following reference is related to the claimed invention. Isogai *et al.* (U.S. Patent 6,979,557 B2) teach a cDNA derived from human such as NT2NE20005500 has been isolated, and the amino acid sequence encoded by the nucleotide sequence has been determined (SEQ ID NO:2323), where the amino acid sequence of SEQ ID NO:2323 (343 amino acids) has 100% sequence identity to the sequence of SEQ ID NO:6 (138 amino acids) and SEQ ID NO:4 (259 amino acids), and 99.7% sequence identity to the sequence of SEQ ID NO:5, and the polypeptides are useful of developing a diagnostic marker or a medicine for regulation of their expression and activity, and can be formulated in a pharmaceutical composition. However, the reference does not teach a cosmetic or pharmaceutical composition comprising a polypeptide consisting of the amino acid sequence of SEQ ID NO: 4, 5 or 6, and the use of a polypeptide comprising the amino acid sequence of SEQ ID NO: 4, 5 or 6 in degrading corneodesmosin in corneocytes. Therefore, the claims are allowable over the art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (571) 272-0948. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached at 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Chih-Min Kam/

Primary Examiner, Art Unit 1656

CMK

December 4, 2008